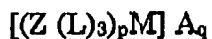


Applicant: Victor Christou
Application No.: 09/445,050

IN THE CLAIMS

1-46. (Cancelled).

47. (Currently amended) Organometallic complex having the formula (I):



(I)

wherein Z is a carbon atom or R¹ - B fragment

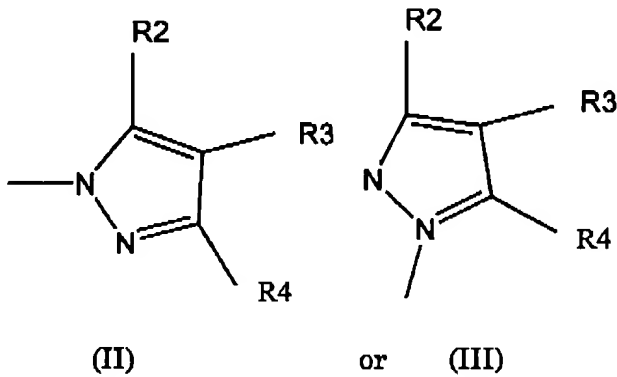
p is 1, 2 or 3

q is 3-p and

A is a counterion;

R¹ is: (i) hydrogen, aryl or aralkyl each optionally substituted with from one to five halogen or C₁ to C₆ alkyl groups; or (ii) C₁ to C₆ alkyl, C₁ to C₆ alkenyl or C₁ to C₆ alkynyl each optionally substituted with one or more halogen atoms;

each L is covalently bound to Z and is independently selected from a group of the formula (II) or (III)



Applicant: Victor Christou
Application No.: 09/445,050

in which R^2 , R^3 and R^4 are independently selected from:

- (i) halogen, cyano, nitro, sulphono, amino, C_1 to C_6 alkylamino, C_1 to C_6 alkylamido, carboxyl, C_1 to C_6 alkyloxycarbonyl, hydroxy, C_1 to C_6 alkoxy, C_1 to C_6 alkylcarbonyloxy, C_1 to C_6 alkylcarbonyl C_1 to C_6 haloalkoxy and hydrogen;
- (ii) aryl or aralkyl each optionally substituted on the aryl ring or, for aralkyl, on the alkylene chain with from one or more of the groups mentioned under (i) above; and or
- (iii) C_1 to C_6 alkyl, C_1 to C_6 alkenyl or C_1 to C_6 alkenyl or C_1 to C_6 alkynyl each optionally substituted with one or more of the groups mentioned under (i) and (ii) above;

~~R^4 and or R^2 is $(CX_2)_nX$ wherein n is 0 or a positive integer from 1 to 6 and X is halogen; or R^4 is orthodihalogenated or orthodiperhalomethylated aryl, optionally further substituted on the aryl ring; or~~

or either R^2 and R^3 or R^3 and R^4 are linked so as to form a fused aromatic or non-aromatic ring system with the pyrazolyl ring of L; and
 M is a trivalent lanthanide metal ion.

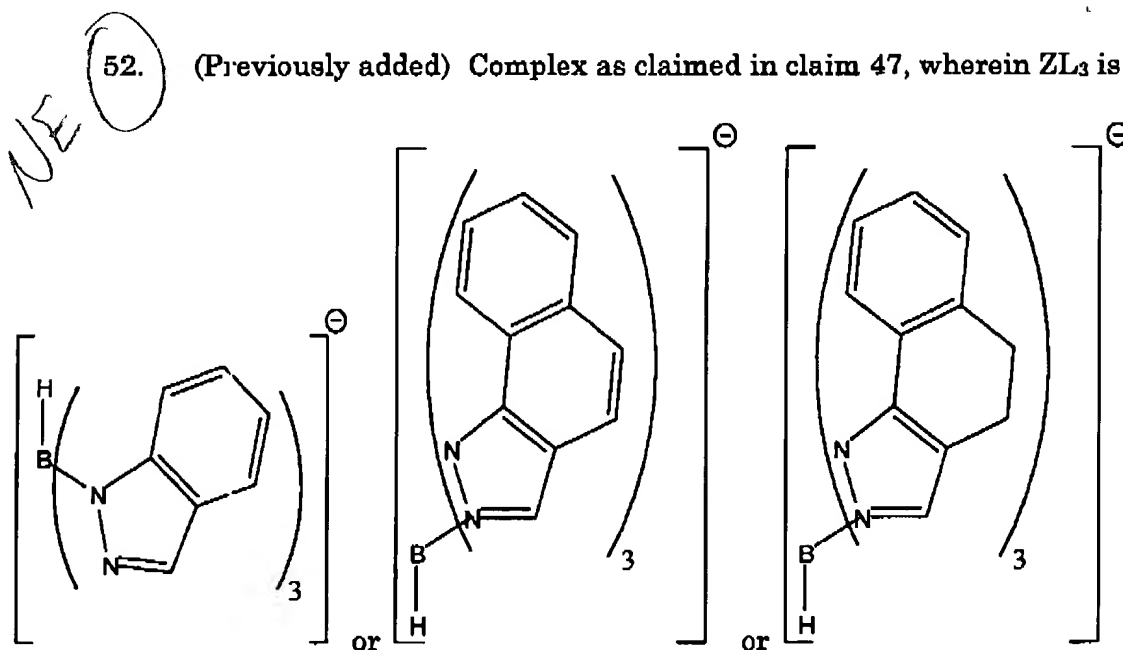
48. (Previously added) Complex as claimed in claim 47, wherein M is Tb, Ce, Eu, Er, Gd, Tm, Sm or Nd.

Applicant: Victor Christou
Application No.: 09/445,050

NE (49.) (Previously added) Complex as claimed in claim 47, wherein R⁴ is trifluoromethyl.

NE (50.) (Previously added) Complex as claimed in claim 47, wherein R³ is hydrogen and R² is trifluoromethyl.

51. (Previously added) Complex as claimed in claim 47, wherein Z is H-B.



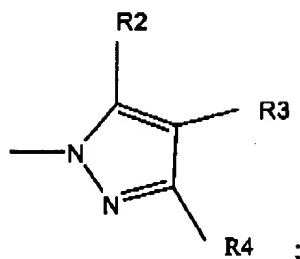
53. (Previously added) Complex as claimed in claim 47, wherein A is CF₃SO₃⁻, halide, nitrate or perchlorate.

Applicant: Victor Christou
Application No.: 09/445,050

54. (Currently amended) Complex as claimed in claim 47, wherein:

Z is H-B;

L is



M is Tb;

A is CF_3SO_3 ;

~~X is halogen;~~

R1 is H;

R2 is CH_3 ;

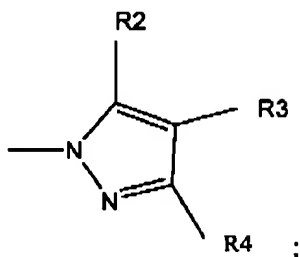
R3 is H; and

R4 is CH_3 .

55. (Currently amended) Complex as claimed in claim 48, wherein:

Z is H-B;

L is

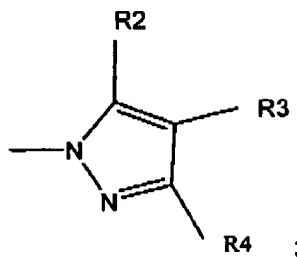


Applicant: Victor Christou
Application No.: 09/445,050

M is Tb;
A is CF₃SO₃;
~~X is halogen;~~
R1 is H;
R2 is CH₃;
R3 is H; and
R4 is CH₃.

56. (Currently amended) Complex as claimed in claim 51, wherein:

L is



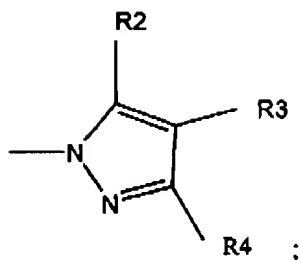
M is Tb;
A is CF₃SO₃;
~~X is halogen;~~
R1 is H;
R2 is CH₃;
R3 is H; and
R4 is CH₃.

57. (Currently amended) Complex as claimed in claim 53, wherein:

Z is H-B;
L is

Applicant: Victor Christou
Application No.: 09/445,050

F1
Contd



M is Tb;

A is CF_3SO_3 ;

~~X is halogen;~~

R1 is H;

R2 is CH_3 ;

R3 is H; and

R4 is CH_3 .